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ESSAY ON SCARLET FEVER.

Being the Dissertation, by F. W. Ellsworth, M.D., of Hartford, which obtained the Prize offered by the Medical Society of Connecticut.

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EMBARRASSED by the varied duties of the general practitioner, I have endeavored to throw together a few notes upon the more important points in the pathology and treatment of scarlet fever, not designing it as a complete history of the disease, nor enumerating all its symptoms, but such only as are of particular interest to those so well informed respecting it as are the physicians of Connecticut. I hope, however, that they embody most that is really useful, though written as the various points presented themselves successively to my mind.

Few diseases, at the present time, demand so much attention as the one under consideration; a fact acknowledged by the Medical Convention in selecting it as their subject for discussion at their meeting, and in presenting it to the great body of practitioners for examination. Consumption, sweeping off one fifth of our young and middle aged, rules the day, and to her dread power medicine presents but a feeble barrier; this fever, however, emphatically the plague of our youth, we may yet hope successfully to resist. I regret that it is out of my power to present a specific, yet I hope the suggestions made may meet with acceptance.

It is only by a careful and philosophical examination of the disease, an accurate diagnosis of symptoms as indicative of changes in the system, and by a judicious selection of remedies founded upon these, with a due regard to epidemic influences, that we can hope to attain the great object of our investigations; yet it is to be hoped that from the great store-house of nature, there may yet be drawn something, as powerful in subduing this fever, as bark in intermittents.

We are unable to draw upon the experience of the ancients, since the disease is either a modern one (which is the opinion of Dr. N. Chapman), or has been ever confounded with other and entirely different affections. It was so confounded with measles, until the close of the 18th century; and as late as the middle of the 17th, measles, smallpox and scarlet fever were considered as identical. The disease first broke out in Spain in 1610, and in eight years spread to Naples, where, and in the surrounding country, it swept off half a million of people. Since Withering's treatise in 1793, it has been so prevalent that there has been no lack of oppor-

tunity for investigation; and the multitudes of treatises upon the subject, remedies and methods of treatment, witness both the interest it has excited, and the insufficiency of the means recommended. Under the improved and fast-improving manner of investigation, the more philosophical views of pathology and organic chemistry, the operation of miasmatic poisons and remedial agents, we may hope a blow will yet be struck at the root of this now so terrible malady, which first commencing its course in North America in 1737, has since then swept annually thousands of children to the grave, prevailing equally in our large cities and the rural districts.

Before entering upon the fever itself, there are some points worthy of study, and bearing strongly upon the whole character of the disease. In the first place, what are we to think respecting the discrepancies of writers regarding the *nature* of scarlatina, whether or not inflammatory? Can it be that sagacious and experienced physicians should have differed, where there was no reason for it? The truth is, both have been partially right and both equally wrong. The treatise by Billing, on the first principles of medicine, has thrown a flood of light upon this subject, and no student should commence the practice of medicine until thoroughly master of its contents. Not that I would subscribe to all his opinions, for few can advocate *many* new ideas, without *some* error; but his views I am confident are in the main correct, and that they will stand the test of time and experience, for they have been the result of both. Now while I run the risk of exciting the prejudices of the older members of the profession, to whose experience all honor should be shown, I must, as an advocate of what I fully believe to be *truth*, and which I hope at some future period more fully to prove, assert the doctrine, that inflammation is essentially connected with the loss of vitality in the part attacked; that fever is essentially attended with the same state of the general system (atony). Let me not be understood as advocating the stimulant practice; for I could show that stimulants, so called, may be the greatest sedatives, and that in these cases the lancet and antimony are really tonics, adapted to particular stages. The views advocated by Billing were to a certain extent my own, before reading his work; but since, they have been greatly strengthened, and I have been enabled with much more pleasure to practise a profession so full of difficulties. There has been much trouble in settling the *modus operandi* of medicines; but having established the fact, that inflammation is a depressed instead of exalted action of the capillaries, a thing fully proved, both by the microscope and the operation of stimulant astringents on all parts visibly inflamed, we are greatly helped in this investigation, and enabled to explain many phenomena otherwise perfectly unintelligible. The discussion of this subject would take too much time; and I will only add, these principles are not hostile to the practice of advocates for the lancet, but founded in part upon the results of venesection. It however gives us better principles whereby to judge what is the proper *time* to administer those remedies usually called tonics and stimulants. Antimony, by depressing the action of the heart, allows the distended capillaries to contract, an operation partly vital, but

also partly mechanical, produced just in the same manner as would be done after bleeding, the reddened tissues becoming at once colorless. When, however, it has been long continued, it is known sometimes to produce gangrene of the lungs, and in poisonous doses, inflammation of these organs—a circumstance depending upon an exhaustion of the tonic power; relaxation ensues just as it always follows a long-continued stimulation, which consumes the energies of the system. Inflammations are well known to ensue rather in debilitated than vigorous subjects. In a puerperal case under my care, where there had been a face presentation followed by considerable hemorrhage, the patient was attacked by metritis; when this yielded, phlegmasia dolens ensued, and mammary inflammation followed this. The patient was cured by calomel and quinine. Persons exhausted by the loss of blood are much disposed to peritoneal inflammation. This I have *seen* in a person who nearly died from a wound of the brachial artery; great attention was necessary to save him from the effects of peritonitis. The practice of anticipatory bleedings, formerly much in vogue in the English hospitals, is now happily nearly laid aside, having been found injurious, producing the very effect it was made use of to prevent.

The following from Pereira, respecting the operation of antimony, shows the mistake of many of our brethren. He says, "We should expect that if antimony had a tendency to inflame the lungs, or at least to occasion pulmonary engorgement, large doses of it would not be very beneficial in acute peripneumonia." Now the good of antimony depends upon this very fact, for it has the power of producing contraction of the capillaries, and this long continued or too energetically, ends in loss of tone and congestion. Ipecac. operates in precisely the same manner—its proximate principle, emetine, having just the same properties of inflaming or of stimulating the pulmonary mucous tissue. And here the homœopathic fraternity have stumbled upon a great truth, though, as they practise, not a truth. They say *similia similibus curantur*. I say, that some medicines, capable of producing inflammation in an organ, may in a smaller dose produce tonic effects. The true statement is, that after the system is prepared and the sympathetic action of the heart controlled, then, *local stimulants cure local inflammations*, whether applied direct or through the constitution, as nitrate of silver that of the conjunctiva, senega of the lungs, copaiba and lytta that of the urethra, Ward's paste that of the rectum; and if the heart does not sympathize strongly, either with the disease or the medicine used for its removal, we may begin at once. But we cannot thus reach many of the organs *directly*, and giving general stimulants urges on the heart and aggravates the difficulty. A specific stimulant may be given safely, provided its operation is strictly local. Upon examination, we shall probably find, that almost all our specifics, so called, operate as stimulants to certain parts of our organization, upon the mucous, serous, or nervous tissues, the glands, coats of arteries, as strychnine; the sedatives are very few, at least the direct. Even prussic acid, one of the most powerful of all, owes probably its control over chronic laryngitis to its property of stimulating the mucous membrane

of the larynx. As I stated, these remedies require caution from their effect on the heart. Capsicum, the *remedium magnum* of Thomson, is usually given after the operation of a powerful emetic, or in combination with it in cases of much torpor. The emesis acts not unlike a venesection; and as the remedy possesses rather a local action, and one by sympathy of tissue, than a general stimulant property, we can easily account for the measure of success which has attended the practice of the followers of Thomson, which certainly has been greater than reasonably could have been expected, considering the ignorance of most of them respecting a correct physiology. The great apostle of homœopathy struck upon a new idea, one half of which is true and valuable, but it is rendered null by his refinement. The suggestion that diseases are cured by medicines acting upon the diseased part as a tonic, at least when applied to inflammations and in the sense which I have explained, will be found true, and it is not improbably so respecting all disorders.

But enough has been said respecting inflammation. I felt it necessary to say thus much, that my views respecting scarlet fever might be better understood, and that there might be no obscurity when treating the subject more particularly. Some practitioners, considering this fever as a disease of intense action, could not restrain their fingers from the lancet, or account for the sudden prostration frequently ensuing. The desperate attempt of Drs. Graves and Marsh, recorded in the lectures of the former, pages 223–4, to cut short the disease by bleeding, shows how mistaken views may lead astray men confessedly among the brightest ornaments of the profession. Another class, true Brunonians, relied upon bark and brandy, but with indifferent success, except in certain epidemics, not reflecting, that in urging on the heart beyond its strength, a true state of debility was produced not to be relieved by other remedies. The truth lay between, and by a proper use of sedatives, so called, but being so only in a restricted sense of the word, the general system is prepared for the use of general tonics, or for stimulants properly so called. *The true remedies for disease are tonics*, but they cannot always be used early; at least this is true of those not acting through chemical changes in the fluids. When the materia medica, still in its infancy, is enlarged and perfected by new agents whose specific tonic action shall be accurately defined, they may perhaps be as soon resorted to in all diseases as lunar caustic in purulent ophthalmia, or iron in neuralgia or chlorosis.

Let us now look at the malady itself. The miasm, or whatever causes the disease, when communicated, is in all probability not an entity, but simply *particles of matter undergoing change*. Many experiments have been made, as in New York during the prevalence of the yellow fever, to detect this poison, in vain. Liebig has shown that particles of matter, undergoing change, communicate the same motion to all other particles capable of the same transmutations. This is the probable cause of all contagious fevers, of the low fever following dissection wounds, puerperal fever, and also the probable cause of the deadly effects of animal poisons, rabies, and the bites of serpents. It is true that this is in a measure a revival of the old doctrine of fermentation, but many things formerly

only supposed true, are now proved so, as is instanced in the discoveries of electricity and magnetism (I do not mean animal magnetism). Liebig has shown the "rationale" of many things, known only before as practical truths. This poison we have reason to believe may be generated in the body, and always is unless taken by contagion, or if not, it must act sometimes with great activity, contrary to what we know is its general law, since it has seized a person just landing after a long voyage. An epidemic influence is probably one of the most powerful causes of its spread, for while at one time we have a straggling case, it will at another burst out, attacking whole neighborhoods almost at once. We have reason, then, to think, that under certain states of the atmosphere or earth, there is a generation of the disease in the system, and *by the system itself.* That it is contagious there is little reason to doubt, although my own experience *is almost at variance with this opinion*—having seen but two instances where it spread in families, though I have often attended cases where the bed has been surrounded by children, whose removal was prevented by the circumstances of their parents. This accounts for the pretended success of belladonna in preventing its contagion. However, so many instances of undoubted infection have been related by neighboring practitioners, and by authors, that we can hardly refuse our belief. One thing is certain, that unless there is an epidemic constitution prevalent, the disease is communicated with difficulty as a general thing, nor is it nearly as contagious as measles or smallpox. The remarks made respecting contagion are probably true only as the malady is communicated by individuals, for we have no reason to believe that an epidemic constitution consists in the transmutation of aerial particles. As I stated, no analysis ever detects this, and we must therefore refuse our belief that there is anything added which thus causes directly the disease, but only such a state as causes its generation in the system in each individual case. Were it not so, but, were persons in an epidemic as much and equally exposed, as persons about the bed-side of a patient sick with contagious fever, infinitely fewer would be the escapes. It is by no means improbable, that the methods of analysis adopted by Liebig, respecting the several secretions of the body, the ingesta and egesta, may yet lead to the discovery of some chemical changes, against which we may guard and lead to greater success in escaping the disease or hastening its crisis.

The division into so many classes, for this fever, is not very necessary or even very useful; yet there is perhaps no other, where the various forms are so strongly marked, justifying this classification. Respecting the milder forms, little need be said, excepting that its sequelæ frequently require attention. The malignant variety attacks very differently at different times, sometimes commencing with a terrible onslaught, there being not only great febrile commotion, but such violent congestion of the brain and determination to the head that convulsions and almost apoplectic coma ensue. This may occur notwithstanding a bright scarlet eruption, showing that these symptoms are not owing always to retrocession or non-appearance of the rash. Again, severe symptoms of gastric derangement exhibit themselves, known by profuse diarrhœa, great

vomiting with ejection of bile, tenderness over the epigastrium. Yet these symptoms are not unfrequently dependent on nervous lesion of the brain, and if the tenderness is wanting, our attention should be fixed rather on this than the stomach. Again, the lungs seem to be the organs congested, known by the extreme anxiety of the patient, oppression of the chest, the mottled hue of skin, the rash being of a darker color, pulse small and oppressed. This state is almost always followed by a similar one of the brain, perhaps depending on the difficulty of circulation through the lungs, the refluent current overwhelming the cerebrum, or perhaps acting by its impurity. Sometimes in this congestive form the child dies without any symptoms of the malady, to one unprepared to meet it, no eruption manifesting itself until after death. This is a most curious phenomenon, yet cases have occurred in other diseases not dissimilar; witness the cholera in New York. Here some of the corpses, dead from this disease, though cold previous to the cessation of life, immediately became preternaturally warm on this event occurring. Nor could this have been owing to simple decomposition, as it rarely attends to such a degree and in so surprising a manner in other diseases, even when decomposition is more rapid than in cholera. Müller's experiments, though opposed to the following view respecting the capillary circulation, are also opposed to the views of many other physiologists, (see Oliver's Physiology). His own reasoning is very inconclusive also, and can weigh but little, the proof of such circulation being far stronger for, than against. The capillaries, having been extraordinarily contracted during the cold and congestive stage, now that the action of the brain and animal life is destroyed, are acted upon in some feeble manner by the nerves of organic life sufficient to admit a temporary circulation. That this nervous energy still may act, I had a fine opportunity of witnessing in a subject recently dead and placed upon the table for *post-mortem* examination. The iris dilated and contracted under the influence of light, to such a remarkable degree, that although there could be no doubt of the death of the patient, I was induced to delay the examination several hours. This also entirely confutes Lawrence's opinion of the contractility of the iris depending on congestion. The blood in cholera contains an unusual amount of carbon; this, driven into the capillaries, is acted on by the oxygen of the tissues and external air, developing heat much as occurs in inflammation. This is the most plausible method of accounting for the evolution of heat in the one case, and the development of the rash in the other. This is also an argument in favor of the doctrine advanced early in this article, for we cannot but suppose more energy in the capillaries at any period before death, no matter how weak might be the system, than after death, and yet the capillaries become distended after and not before, showing that in this latter state there is rather loss of tone than excessive action. There is one very singular form of the disease, where the person suffers comparatively little distress and is hardly conscious of danger, but looks pale and is very feeble. Such cases are apt to be of the most dangerous character; there seems to be a narcotic effect produced by the poison, for the sensibilities are not to be aroused even by the most

powerful stimulants. There is another though not dissimilar form attacking very young infants, respecting which, as little has been said by authors, we will make a few passing remarks.

Infants at the breast are less liable to attacks of scarlatina than older children. Billard says, "Although it is extremely common at the Hospice des Enfans Malade, it is very rare at that Des Enfans Trouvés." The first case of this description which fell under my care, gave me no little trouble. The infant was about six months old: there was no appearance of eruption, and the symptoms were rather those of influenza, being particularly perplexing, as that disease was then epidemic, and audible symptoms of bronchitis were easily detected by the ear applied to the thorax; yet there was a peculiar waxy appearance of the skin and puffiness of the face and arms, which convinced me that there was something more. A mustard bath developed the rash. We cannot in these cases, where a correct diagnosis is so desirable, draw any inference from the papillæ, for the mucous membrane of the mouth and fauces has not yet become involved. But there is a thick white fur on the tongue, unlike what we should look for in influenza, and this peculiar whitish puffiness of the face and arms, particularly the hands, which once seen will not be easily forgotten. It has a slight tinge of yellow, probably depending on the effused serum seen through the transparent skin. This is soon followed by defluxion from the nostrils. Sore throat is not always detected in these little ones, though a redness may frequently be seen from the first. Usually in three days or a little sooner, the tongue clears off and you have the inflamed appearance of scarlatina. So far as my observation goes, the disease proves very severe when it attacks in this manner very young infants.

I would also draw attention to the cases where there is a remarkably vivid rash; these I have found almost equally bad with those where there was none. Graves states, that in an epidemic at Dublin, most of the worst cases had a general and intense efflorescence. At first view we should be inclined to think that there was violent action, the pulse in children not unfrequently beating 130 or 140 in a minute. But it is a pulse of irritation, such as accompanies a burn or erysipelatous fever, bearing direct depletion badly, especially in an epidemic season; which latter circumstance always points out a more careful use of evacuants and generally an earlier resort to tonics. I cannot forbear mentioning the case of a lady in my neighborhood. Violent symptoms of cerebral disease were developing themselves, to restrain which, a few leeches were applied with great caution, and yet a fatal collapse rapidly followed. To what can this remarkable redness of the integuments be owing? May this problem not have its solution in this manner, at least in part? The external air acts upon the blood within the tissues, for we know that it thus acts through other tissues of the body, and the same supposition has been entertained respecting the skin. Marshall Hall states that he has noticed that organs are less inflamed according as they are deeper seated, or at least appear so on *post-mortem* examination, the external parts present a brighter tint, and remarks that poultices, now beginning to be used in thoracic and deep inflammations, probably owe their efficacy

in considerable measure to their excluding the external air. In scarlatina, the blood seems almost spread out in the external layers of the skin, presenting a vast surface in almost immediate contact with the atmosphere. Knowing the remarkable effects produced by excluding air from the surface of the animal body, and the great diminution of heat thus produced, some advantage might possibly be taken of the suggestion. Smallpox is known to be less fatal if pustulation can be limited, and the disease seems not aggravated by the attempt to do this, as has been done by the French physicians, using for the purpose the emp. vigo. There is, it is true, a difference between these two diseases, for in the one absorption of pus renders the symptoms more grave, while there is nothing of this in the latter; yet as the disease in this latter case is not mitigated by the great efflorescence, its modification might sometimes prove useful. We cannot try the experiment on the lower animals, as we do not know that they have a similar disease, or one any way analogous; yet it would not be an uninteresting experiment, to see the effects of a layer of varnish spread over a limb or portion of the body. The great difficulty is, that we can rarely tell before hand what sort of a case we are to look for, and after the eruption has once come out there would be less chance for its modification. Such a layer has been found of some efficacy in erysipelas, a disease somewhat resembling scarlet fever. So, also, and more particularly, in burns. Little fear need be entertained of repressing perspiration, for the violent cases are rarely attended by such secretion, but by a most uncomfortable state of dryness of the skin.

Between a burn and scarlatina there is a most remarkable similarity, and I am surprised that it has not been more particularly noticed, for aside from the apparent similar state of the capillaries, there is much the same internal appearance. Dupuytren remarks that almost all cases of severe burn are followed by inflammation of the mucous membrane. Dr. A. G. Smith, of New York, who had many and almost unrivalled opportunities for seeing the effects of extensive burns, being stationed at Cincinnati, where many are annually brought, scalded by steamboat explosions, states that *post-mortem* appearances always indicated mucous inflammations. One case came under my observation, where from an extensive burn genuine croup set in, which with the terrible cutaneous injury terminated rapidly the life of the person. In this case, however, the flames *might* have been inhaled, and I will not insist upon it as a case in point. Ulceration of the duodenum is known to be a not unfrequent result of this accident if severe. There is, moreover, the same rapid and irritable pulse, one hardly improved by venesection, though it has been occasionally proposed; the same excessive nervous irritation. These reasons lead me to think that a modification of the same external treatment might be useful.

Respecting the affection of mucous linings there are some points of considerable interest. When the skin is inflamed, we know that these linings are apt to become involved, sometimes perhaps by sympathy, and at others by contiguity and extension of similar tissue, this last having a

most marked influence upon the extension of inflammatory action. Inflammation of an hernial sac will spread into the abdomen, but a layer of effused and hardened lymph will impede and even stop its progress. Billard has shown, by a multitude of cases, this close connection between the two surfaces, and that the mucous membrane is generally affected in proportion as it is near to, or distant from, the free action of the external air, or its nearness to the tegumentary covering. The examination of scarlet fever cases, shows that the same rule holds true here also, for we find the mouth, nares, throat, larynx and pulmonary mucous membrane affected almost in the ratio of their nearness to the skin, modified only by circumstances connected with the organization of the several parts, as will be seen. In very young infants, the pulmonary mucous membrane is peculiarly disposed to take on diseased action; the larynx, also, is not apt to escape some marks of disease, and occasionally a genuine croup cut off the little sufferer as early as the fifth day; one little patient of mine, so attacked, died as early as the seventh. This case was accompanied by the most vivid eruption I ever witnessed. The eruption of smallpox is known to involve the whole internal surface as well as the external, and Leutaud has seen the eruption of measles upon the surface of the abdominal and thoracic viscera. We may suppose the same holds true in the disease under consideration, although it does not leave the same traces of its existence.

[To be continued.]

DR. TOWNSEND'S CASES OF FRACTURES IN THE MASSACHUSETTS GENERAL HOSPITAL.

[Continued from p. 253.]

Case X.—July 25. M. D., æt. 21. Patient was going up a ladder, the bottom of which had been placed on a box, and when near the top of it, the box tipped and he fell about twenty feet; the weight of his body came on the right foot which was turned outwards, producing a fracture and protrusion of the bone near the ankle-joint. The protruding bone was returned before entrance into the Hospital; considerable hemorrhage from wound.

On examination, find patient restless and complaining of great pain about ankle; the joint much distorted, foot turned outwards and resting on its inner side; from about three inches above right external malleolus, there is a fracture extending obliquely inwards through internal malleolus, the direction of which is indicated by a depressed line. About the external malleolus is a great prominence and fulness; a little upwards, is a rounded piece of bone, which seems to be a portion of the astragalus broken off, with its upper edge nearly protruding through the skin; this is moveable and about an inch long; a depression is felt between inner malleolus and lower part of the upper fragment of the tibia. The external wound, through which the lower part of the upper fragment of tibia protruded, is one and a half inches long; some hemorrhage continues. The

anterior tibial artery is uninjured; the posterior cannot be felt, on account of the swelling.

After some extension of the foot with slight pressure on the tibia, the parts were brought into a little better position, though there was still great prominence at the external malleolus. Lint dipped in blood to wound.

26th.—Great pain in ankle yesterday, and most of last night, preventing sleep. Took two grains of opium with but little relief. This morning is more comfortable. Hemorrhage has ceased; no increase of swelling about ankle. R. Sulph. magnes., ʒ vj.; and repeat if need be. Leg to be flexed and placed on its outside. Six leeches along depressed line.

27th.—Pain continued through yesterday. Was restless and wakeful through night, and very thirsty. This morning countenance distressed, face flushed, respiration hurried, and with sighing; some tremulousness of chest; position of head changed frequently; skin hot and dry; pulse 120; tongue coated. Ankle and foot look badly, both much swollen, with yellowish vesications about inner malleolus; inside of foot, near instep, marked with dirty-brown and purple patches. Great toe rather cold. R. Zinc. sulph., ℈j., and repeat if necessary. Apply to foot compresses wet with creosot., ʒj.; aq. fervent., Oj. M.

28th.—Much relief after operation of emetic; countenance became better. Some short naps during day. This morning lower part of leg dingy red, nearly copper colored; immediately around and below wound integuments are purplish black, foot swollen and puffy. Pulse 116 and softer than yesterday. R. Tr. opii, gtts. x.; spts. æth. nit., gtts. xxx. M. every two hours. Brandy and water occasionally. Add to wash, Tr. opii, ʒ iv.

29th.—Pretty comfortable through the day. Slept well in night. This morning improving. Pulse 104. Tongue as yesterday. Skin more natural. Some pain in ankle; distinct line of demarcation of mortified parts, running irregularly round and below wound, on inside of foot, for about three inches; discoloration and swelling of leg and foot much less; discharge of a thin, bloody fluid, rather offensive, from vesications and beneath lint. Toes and foot sufficiently warm. Continue medicine of yesterday every six hours; poultice foot and ankle. May have ale, porter or wine; also chicken broth.

30th.—General symptoms improving. Pulse 100. Tongue cleaning. Lower part of tibia prominent.

31st.—Internal saphena vein quite prominent, with redness just above knee. Purple vesications at external malleolus. Omit poultice; apply about slough unguent. creosot.

August 1st.—This morning rather better. Pulse 80. Outside of foot red, swollen and œdematous. R. Tr. quiniæ, gtts. xl., thrice daily. (The above is a Hospital tincture, ʒj. of which contains grs. jss. of quinine.)

3d.—Slough, which is quite superficial, removed this morning. Foot still swollen and of a yellowish-brown color; at the external malleolus is a very copious discharge of dark-colored pus from an abscess; parts around exceedingly tender. About an inch of the lower part of the

tibia is exposed. Patient reports great pain at times. R. Decoct. cinchon., Oj.; tr. cinchon. c., ℥ ij. M. ℥ ij. every three hours. Beefsteak for dinner. Continue wine. Sprinkle chloride of lime on ulcer.

Patient continued improving in his general health daily; the foot and ankle were, however, in such a state that it was found impossible to save the limb. The tibia was exposed for more than an inch, great part of the foot was in a sloughy condition, and there was a large abscess near the external malleolus, and a free opening through the joint. Such being the case, it was thought advisable to take advantage of the patient's improved health, and remove the limb. This was accordingly done by the circular operation, at ten inches below the knee, on the 9th of August, at 11, A. M.

On examining the removed limb, a fracture was found extending from about three inches above external malleolus, obliquely through fibula and tibia to about one inch above internal malleolus. The lower fragment of the tibia was broken into three pieces; one on the fibular side was one and a half inches long and one inch wide at its broadest part, with a very sharp point; this piece was displaced and lay almost transversely over the astragalus, the other two pieces were not much separated.

Compresses dipped in cold water were applied to stump.

10th.—The flaps were brought together yesterday P. M., and secured by two sutures and emplast. adhæsiv. This morning is quite comfortable, though stump is occasionally painful. Pulse 96. May have arrow-root and wine, with a little bread.

12th.—Doing well. Sutures removed this morning. Some discharge from stump.

20th.—Is up and walks about daily with crutches.

September 9th.—Wound healed. Discharged well.

Case XI.—July 17th. J. F., æt. 40. Patient was at work, painting a house, about thirty feet from the ground, when the frame on which he was standing gave way and he was thrown down, striking on his feet; by report the end of the tibia protruded through the skin, two or three inches.

On examination, find patient a large man, six feet four inches tall, weighing about 200 pounds, and at present somewhat nervous and agitated; left foot inclined outwards, but readily replaceable in position; foot and lower third of leg much swollen; a deep wound, four and a half inches long, extending from tendo-Achillis obliquely across inner ankle. From motion and rotation of the joint it appears that not only the inner malleolus but the whole of the end of the tibia has been dislocated and protruded through the opening; the end of the tibia feels rough, but there is no evidence of fracture either of this or of the fibula. But little hemorrhage. Cover wound with lint soaked in the blood. Lay the limb on a pillow.

19th.—Has been tolerably comfortable since accident, having suffered but little pain in the ankle; the foot retains its natural position without support.

23d.—Limb begins to be more painful. Wound discharges through lint. Let the lint remain, and cover the whole with simple cerate.

25th.—Yesterday in P. M. was attacked with shivering, headache, nausea, thirst, heat of skin and excessive pain in ankle; some redness about wound. Pulse 110. Took ipecac. gr. xxx.; submur. hydrarg., gr. v., M., and had poppy fomentations applied to ankle. Vomited twice with relief. Slept a little. This morning reports better, with the exception of headache. Pulse 96. Erysipelatous blush about ankle. No dejection yesterday. R. Pulv. antimonial., submur. hydrarg., āā gr. iv. M. In P. M. an enema if necessary. At night, R. Pulv. Doveri, gr. x.; pulv. antimonial., gr. iij. M. Apply compresses to ankle dipped in Acet. plumb., grs. xxxv.; aquæ, ʒ iij.; tr. opii, ʒ ss. M.

26th.—Suffered much pain during day and night; is nervous and restless, moaning most of the time. Discharge from ankle increasing and rather offensive; adjacent parts swollen and œdematous. Remove emp. adhæsiv. R. Pulv. Doveri, gr. x., to night.

27th.—This morning more erythematous appearance about wound; discharge sloughy and offensive. Tongue cleaner. Pulse 88. Creosote wash to ankle and foot (ʒ j. to Oj.) Broth ʒ iv. for dinner. R. Tr. cinchon. c., ʒij.; aquæ, ʒ j., M., every four hours. Acid drinks.

28th.—Free discharge from wound; less offensive; granulations appearing at the two extremities of the wound; redness rather less. Add to medicine of yesterday, tr. s. quiniæ, gtts. xl.

30th.—Nervous, moaning and worrisome as usual. Countenance this morning worse. Erysipelatous blush extending up the fore and back part of leg. Omit quinine. R. Potass. nit., gr. xij.: pulv. Doveri, gr. ij., M., every four hours.

31st.—Distinct fluctuation in swelling about instep; a small opening has appeared near external malleolus, through which pus flows freely. A few small bony particles came from wound at inner malleolus this morning. May have wine, ʒ iv. and beef tea for dinner. Place leg in a fracture box partly filled with bran.

August 1st.—Abscess forming about ankle.

2d.—Last night slept very little. This morning countenance very desponding. Leg feels quite doughy at its lower part. Discharge at external malleolus free from two openings, about which the cuticle is removed. Original wound more sloughy and offensive. Fluctuation on instep more superficial and extending towards external malleolus; one small gangrenous-looking patch near it.

3d.—General symptoms much the same. Discharge continues very free and offensive from the openings at the external malleolus, and also from the abscess about instep. R. Decoct. cinchon., Oj.; tr. cinchon. c., ʒ j. M. ʒ ij. every three hours. Wine ad libitum.

5th.—Another opening, which discharges freely, at the upper and inner side of foot.

6th.—Swelling almost gone from leg and foot; skin in folds and rather dry. Original wound improving in appearance.

12th.—Continues much the same. Discharge from all the openings free. May have ale, Oj. daily.

15th.—Still very desponding, with an anxious countenance. Probe introduced into opening near external malleolus, touches denuded bone, and can be passed thence down through opening on upper side of foot. A counter opening was made to-day in middle of this sinus. Omit all medicine and ale. R. Quiniæ s., gr. ij. thrice daily. May have wine, ʒ viij.

24th.—Openings on foot contracting; discharge much less. On raising foot, crepitus distinctly felt around joint.

September 5th.—Some cough, with bloody expectoration. Fine crepitous râle about base of left scapula. R. Pil. scillæ comp. thrice daily. Omit quinine.

Patient at this time had a slight attack of pneumonia, which was treated in the usual way, and lasted till the 13th, at which time he was relieved.

13th.—Integuments about heel beginning to slough. The leg was suspended by strips of bandage from the knee to the foot, passing under the limb and attached above to a fracture cradle.

22d.—Slough separating from heel, laying bare the os calcis for two inches.

The foot continuing to grow worse, and the general health failing, it was thought improper to persist in any further attempt to save the limb; accordingly, on

October 4th, the leg was removed by the circular operation, ten inches below the knee.

On examination of the parts removed, the joint was found entirely disorganized, being filled with pus; no evidence of any fracture was discovered, but the end of the tibia and the top of the astragalus were rough, the cartilage having been removed by ulceration.

Compresses dipped in cold water were applied immediately after the operation, and in the afternoon the flaps were brought together by sutures and adhesive plaster.

Since the operation the patient has improved steadily, with the exception of a few days that he labored under an attack of bronchitis. At the present time, though the patient is still in the Hospital, the wound is nearly cicatrized; he walks about on crutches, and is gaining strength and flesh daily.

[To be continued.]

VACCINATION IN SIAM.

[Readers of the Journal will perceive, in the various communications from Dr. D. B. Bradley, the indefatigable and conscientious American missionary physician in Siam, that he has made extraordinary exertions to introduce and continue vaccination in that singularly-organized kingdom, where smallpox has been the terror of the country for a long period, and swept off annually vast multitudes of people. With a view to placing before the profession a history of Dr. Bradley's praiseworthy efforts in this laborious work of benevolence, it is necessary to publish all his letters.

Coming sometimes by sea directly to America, and occasionally by the overland route, and ultimately reaching Boston by the way of England, they do not always reach here in the order of their dates, and sometimes several letters are received at once, as is now the case. However, we are unwilling to lay aside anything which Dr. Bradley may write on this subject, because he is laboring to solve a great problem, of incalculable importance to the inhabitants of that far-off section of the world where he is stationed, while he is at the same time enlarging the boundaries of medical knowledge.]

Bangkok, February 20th, 1845.

To the Editor of the Boston Medical and Surgical Journal.

My Dear Sir,—I wrote you on the 14th of September last,* giving some account of my successful propagation of the kinepox from a parcel of scabs, which you sent me in the latter part of the year 1843, and which came to hand about nine months after it was despatched. I am happy to inform you that I am still, by the good hand of my God upon me, carrying on the good work which had its beginning in a single pustule on the 7th of August, but has now become as a swelling river. I find, on referring to my note-book, of all the cases in which I have inserted the vaccine virus since then, that there are more than one 1000 of them marked as successful. This number does not include any of whom I had any doubt. The whole number on whom I have operated for vaccination, as noted in my book, is 1617. Among the 617 cases that are not marked as successful, there will probably be scores that time will prove to be secured thereby from smallpox. Almost all these supposed failures occurred previous to the first of December. It was not without the greatest difficulty that I was enabled to preserve the vaccination through the wet season. This difficulty was of two kinds:—1st, Opposing influences in some one or more of the elements; 2d, the opposition I met with in the indifference and the bitter prejudices of the people. Many a week I have had only one or two successful cases out of twenty or thirty operated upon. Often has my heart sunk within me, as I went around from week to week, to look after those in whom I had inserted the virus the week before, and could not find a single pustule with which to cheer my hopes, until on the very point of giving up the work as lost, the Lord in my extremity has taken up some child, that I had overlooked, and set him before my eyes. a fair case from which I might vaccinate. Language cannot describe how my heart has overflowed with gratitude, on such occasions, to my superintending and faithful God.

The causes of the many failures from August to December, are, I doubt not, in some way connected with the rainy season; for when the virus began to take in August, and when it took with a good degree of promptness, the rains were not abundant. But as we approached the dry season, which begins annually about the middle of November, the rains became very abundant, so much so that great fears were entertained that the whole country would be flooded. I found the greatest opposing influences from the elements in the month of October, and the first part of November,

* See Vol. XXXII., p. 400.

when the air and the earth were excessively charged with water, and when the electrical influences were in great commotion. But as soon as these phenomena passed away, the vaccine virus gradually became more and more quick and sure, until in December, January and thus far in February, it has taken in almost every instance with but the slightest insertion of it, and that without any plaster to protect it. Since the middle of November, we have scarcely had any rain or lightning. I suspect the difficulty arising from the elements, of which I have been speaking, has more to do with the state of electricity, than with moisture. I judge so from the fact that I have sometimes been more successful in vaccinating in the midst of the most copious rains, than at other times with less rain or even none at all, but with very marked electrical phenomena. I suspect that it will always be found to be very difficult to propagate the kine pox in Siam during the latter part of our wet seasons, answering to September and October. This work, which I have now had in operation more than seven months without interruption, would have been all cut off many times over if I had not had several sets of subjects on hand at all times, and such as had been vaccinated from several different persons. I have little confidence that any native or set of natives of this country, will or can be induced to bestow all the care to keep vaccination a-going during the wet season, that I did the last wet season; and I feel sure that without every item of that care, it can never be carried through the opposing influences. So great were my efforts during that season, and so exhausting to my constitution, that I can scarcely think of going through the same process again, even though I could satisfy myself that it were wise to take so much time as it demands from proper missionary work. Hence I would request you to continue to send me packages of vaccine virus regularly as you have done, that when this which I have now in operation runs out, I may begin anew from that which you shall send me.

During the wet season, I took every precaution to preserve a quantity of virus on points from week to week, in sealed phials, so that in case I could not find a subject to vaccinate from, I might have a hope in resuscitating the work with that. My plan was to put a few dozens of strongly charged points into a small phial, which I closed with sealing wax and then imbedded the phial in a block of wood and sealed that also, and put it in a dark and dry place. After this manner I put up some dozens of phials, taken during almost as many weeks. But at length on experimenting separately with these points, I found that I could not make one of them produce the genuine vaccine pustule. I have hence concluded that they have little if any power remaining in them, notwithstanding all my pains to preserve them, and think that the scabs I receive from you will probably afford me a far better hope of renewing the work of vaccination, in case of its being cut off, than any matter that I can preserve here. I have consequently given up the care of preserving the virus that is generated here, except as I can do it in a living receptacle, the human body. The phial of scabs from which I vaccinated successfully, and another lot since received from you, are still in careful keeping as a safeguard.

I have uniformly found it difficult to make the virus take from the point of a quill, although it be taken from the pustule on the same day; and therefore it has become my practice to have always a fresh pustule to vaccinate from, whenever I perform the operation. I take the matter from the pustule on the two lance-shaped ends of an ivory stick, three inches in length, and insert it directly into three punctures in the arm.

Scabs from these pustules are quite out of the question to vaccinate with, as the decomposing power of the climate, or some other power, is so strong that they lose all their vitality while in the process of formation. Even the scabs of smallpox are quite inert. I have often tried in vain to produce smallpox from them. To what shall this inertness be attributed, if not to the decomposing power of this climate?

[Some further remarks under this date are reserved till next week.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 5, 1845.

Beechism.—That there may be nothing wanting by way of variety in Boston, a certain Dr. Beech, who hails from New York, was lecturing last week at the Marlboro' Chapel, on what he was pleased to call *the reformed system of medical practice.* He is the author of a book explanatory of his individual views, which are essentially different from those of the regular faculty, and are designated Beechism by his followers and others. A great part of the introductory remarks on the evening we were present, had reference to laying a foundation for the sale of the volume alluded to, which he triumphantly held up to a singularly miscellaneous audience. Dr. Beech intimated that he had received certain great attentions from various potentates of Europe. So would a tinker, had he forwarded a tin kettle to the same courts, since it is royal etiquette to make proper acknowledgments to those who fawn upon their shadows. There were other preliminary observations, obviously intended to impress the idea on the minds of the astonished listeners, that a tremendous medical revolution had been brought about by their friend and benefactor, the speaker, which, Napoleon-like, made the old school physicians—that is, those who really know anything—tremble for their bread and butter. Finally, the proper business of the evening fairly commenced by lecturing on ipecac. Either the subject, or a transparency which exhibited the plant to the life, was too nauseating for a mixed assembly, as many quietly walked out. A vast variety of topics were to be discussed, but how many of them were methodically disposed of, is only known to those who valiantly remained to the last. A manakin, pictures of skeletons, together with a verdant exhibition of painted medicinal plants, constituted the side scenes of the show.

From various sources, and for years too, we have heard of Dr. Beech—through his disciples, however, more than by other channels. On hearing and seeing the gentleman laboring in that Omnium Gatherum Hall, where all sorts of ordinary and extraordinary persons take turns in reforming

the world, we came to the conclusion that the speaker was a respectable man as to talents, though without any claims to distinction on the score of originality. It is a shameful waste of words for one to pretend, in this quacking and bequacked age, that he has nothing but the absolute best interest of all mankind at heart, in placing himself at the head of a medical reform like this, and that he has made prodigious sacrifices, and is willing to suffer more, if he can convince a stupid race of mortals that their humble servant is a-kin to the god of physic. The poet anticipated the canting hypocrisy of such benefactors, in two immortal lines of doggerel.

"The people have all patriots grown—
They talk of public good, and mean their own."

Beechism, we apprehend, though in some respects preferable, is as far from being perfection as Thomsonism, Grahamism, pathetism, animal magnetism or any other modern ism. Its inventor, by pursuing a course of action in accordance with modern science, might have had a higher position in society, and achieved more for himself and posterity, than in stemming wind and tide in a leaky ship that must inevitably go to the bottom the moment he leaves the helm to other hands.

Climate and Diseases of France.—A Massachusetts physician, now in Paris, has transmitted the following observations on the general character of the climate of France. About the middle of September the weather is unusually pleasant—reminding one of the first days of June in New England. This fact is mentioned, as most people are interested in the subject, and our feelings and happiness, in some degree, are dependent upon the vicissitudes of the weather. The winters in France are shorter and milder, and more equable, than at home; there is also less snow, and what falls remains but a short time. There is but little rain; yet to offset that, the sky is clouded six sevenths of the time, while the bright sunshine, which makes the charm of an American winter-landscape, is not seen. Acute diseases, which prevail with us during the cold weather, are just about as frequent in France, as far as can be judged without reference to statistical tables. The spring opens earlier than in Massachusetts, and the change from cold to heat is more gradual. Rain and sunshine alternate with each other, and render an umbrella indispensable The distance from the ocean, in Paris, prevents the changes of temperature which are the plague of nervous persons and invalids on a change of wind in New England. The summers are comparatively rainy, cool, and with very little of intense heat. There are but few days when a walk in the shade at mid-day is not bearable. As with us, the autumn is the finest part of the year, with bright sunny days and cool bracing air. The mass of the people have an appearance of health, unknown to us: the women we should call buxome, having a comfortable air of good health. This is more marked in the females than in the males, although the latter are comparatively healthy. A sallow, shrunken Frenchman is not the representative of the nation. Headaches, dyspepsia, and the small bodily ills, are less frequent than in the northern States—owing partly to the mode of life, but more to climate.

Elements of Therapeutics and Materia Medica.—By the express messenger, a copy, in two volumes, octavo, of a handsomely finished work,

under the name of "Elements of Materia Medica and Therapeutics, by John P. Harrison, M.D.," of the Medical College of Ohio, has been received. One of the first thoughts, on opening the leaves, had reference to the commendable efforts making at the West, to give character to the science of medicine. Short of fifty years ago the queen city was unknown. Now it is the seat of learning, the residence of men of great mercantile enterprise, and the focal point from whence radiates both knowledge and refinement. Medicine, ordinarily, in new countries, does not make the progress that appertains to other sciences; but in Ohio, the common order of things, in this respect, has been reversed. Not content to be the teachers of science in the College, the medical professors in the School at Cincinnati are sending out their treatises to be circulated over the world, to influence public opinion, and to surprise the inhabitants of older countries everywhere, with the energy, thrift, and indomitable perseverance of the medical talent of the West.

Within a year or two past, three important medical books have been published at Cincinnati, two of which were illustrated by beautiful colored plates.—But we are compelled to postpone the subject of Dr. Harrison's labors to another week.

Medical Schools in New York.—A strong impression is abroad, that the New School of Medicine, as it is termed, will gather a much larger class the present season, than in any former year since its organization. On Monday, Oct. 27, the term commenced, it is reported, under favorable auspices. With the talent and medical reputation appertaining to some of the gentlemen holding professorial influence in the school, it would be strange indeed if they did not gather increasing numbers around them, from season to season.

In the old College of Physicians and Surgeons of New York, there is every facility known to modern times, for educating practitioners in the best manner; and a board of faculty, often weighed in the balance of public opinion, but never found wanting. We are prepared, therefore, to hear that both schools have matriculated more students than on any former occasion.

Wood converted into Iron.—A patent has been secured in England for converting wood into what may be called metallized wood. Timber, of any dimensions, having been shapen and adjusted, as required for any purpose, is introduced into an immense iron cylinder. By machinery, it is quickly exhausted of air, and a solution of sulphate of iron is thrown in, which instantly fills the pores of the wood. Being soon after withdrawn, the timber, thus charged, is placed in another vacuum, in which is thrown a solution of muriate of lime, which, on coming in contact with the iron already in the vessels of the wood, decomposes it, and forms an insoluble sulphate of lime, or gypsum. Thus, the sticks become about as hard as stone, are prodigiously increased in weight, and for railway sleepers, posts of bridges, mill-races, &c., must endure for ages. This process cannot be very unlike the lost art of converting flesh into stone. Those who have access to large air-pumps—such as may be found at Mr. Chamberlain's large philosophical-instrument depot, in this city—might conduct a series of experiments analogous to those performed on wood, and perhaps bring

about results not only entirely new, but striking in their character. Facilities are now abundant for carrying on a series of investigations into the art of lapidating the bodies of animals.

Health in Mississippi.—A letter from Dr. C. S. Magoun, of Woodville, Mi., under date of October 15th, says—"We had a light frost last night, for the first time this fall. No sickness is prevailing, and consequently we now expect none for this season. This year, thus far, has been one of unusual health. My practice has only been about one fourth of what it was last year up to the same date. The months of August and September were as healthy as any months I ever knew since residing in the State. Some few cases of congestive fever have occurred, and most of them prove fatal before any medical aid is procured. I have been fortunate enough to lose no fever patients this season, and it is a fact, strange as it may appear, more deaths invariably occur in the winter than during the summer. The summer attacks are generally controlled by art; but such is their force on the constitution and general health that the sequelæ which follow carry off the patient, with pulmonic disease, visceral obstructions, &c. Dropsy is quite common here as a sequela of other diseases. This disease proves fatal in almost all broken down constitutions."

Medical Miscellany.—Dr. Ruschenberger has prepared a work on the Elements of Geology for the use of schools and colleges.—The petrified body of Mrs. Morrison, who was buried at Berthier, Canada East, in 1824, and exhumed in June, 1844, is to be exhibited in Boston the present week.—No. 3, of the new series of the American Journal of Pharmacy, which should have the patronage of all apothecaries in the Union, fully sustains the character of the work.—Rev. Mr. Henry is now residing near Utica, N. Y., who is 111 years old, and in good health and spirits.—The appointment of Surgeon to Queen Victoria's yacht William and Mary, vacant by the retirement of Mr. Edwards, has been given to Mr. M'Cormick, the adventurer to both poles, he having accompanied Sir Edward Parry to the north, and Sir J. C. Ross to the south.

To Correspondents.—Dr. Allen's paper on Aneurism cured by Pressure; Dr. Chandler on Puerperal Fever; Dr. Leonard on Homœopathy; Remarks on the same by "A Looker On"; Prof. Mussey on the Bi-Lateral Operation in Lithotomy, &c.; and Dr. S. A. Cook on Vaccina, have been received. These, as well as other papers already commenced in the Journal, will be disposed of as early as space will allow.

Married.—At Darien, Conn., Dr. Robert H. Lockwood, of Stamford, to Miss Mary J. Waterbury, of Darien.

Died.—Douglass Houghton, M.D., late Geologist of Michigan, drowned near Eagle River, in Lake Superior, during a snow storm.

Number of deaths in Boston, for the week ending Nov. 1. 52.—Males 25, females 27, stillborn, 7.
Of consumption, 17—sudden, 1—convulsions, 1—infantile, 4—dropsy on the brain, 2—croup, 1—dropsy, 1—brain fever, 1—typhus fever, 4—delirium, 1—inflammation of the lungs, 2—murdered, 1—scarlet fever, 1—inflammation of the bowels, 1—childbed, 3—accidental, 2—diarrhœa, 1—dropsy of the chest, 1—abscess, 1—hemorrhage, 1—debility, 2—marasmus, 1—lung fever, 1—old age, 1.
Under 5 years, 15—between 5 and 20 years, 7—between 20 and 60 years, 28—over 60 years, 2.

The Epidemic Constitution of the Year.—This is a subject truly important to be known in the diagnosis and treatment of disease. Dr. Siebert, in his "Art of Medical Diagnosis," justly ridicules the partial views of those pathologists who see an inflammatory, a rheumatic, a catarrhal, gastric, nervous, &c., genius according to their preconceived notions; he is only surprised that they have not discovered a sanguineous, or osseous, or serous constitution. The fact most generally recognized, is that the predominant constitution or genius attracts all other diseases to itself, and impresses upon them its own type. But what is the cause of the predominant constitution? Dr. Siebert, in common with the majority of enlightened practitioners, looks for it in the meteorological changes proper to climates and seasons. Different climates have each their permanent "constitutions"—so have the seasons. A cold, dry winter is as assuredly marked by inflammatory affections of the lungs, as by depression of the thermometer. Dr. Siebert enumerates several analogous instances of the seasonal recurrence of disease. The truth we think is this, that the meteorological changes determine a predominance or cessation of action in special organs, and it is these functional changes that determine the epidemic constitution just as they determine the individual constitution. Only in the latter case the functional activity or repose is permanent or alters only with age; in the former it alters with every great meteorological change.—*British and Foreign Med. Review.*

Convulsions in Infants.—We have collected 41 cases of convulsions of children at the breast, in 27 of which the cases were idiopathic, in 14 symptomatic. Fifteen of the children, in whom the convulsions were idiopathic, were attacked by them in the midst of perfect health, and recovered without any ill result; 4 died several months afterwards of other diseases, and an examination did not disclose any important changes in the brain. In 12 the convulsions occurred in the course of other diseases which were serious from their commencement, or at the close of pneumonia, or in the course of erysipelas, or of the fever that attends the development of the vaccine vesicle, and 7 of them died. Only 1 of them, however, presented any morbid appearance of the brain, which consisted in the presence of a tubercle surrounded by unchanged cerebral substance, in the centrum ovale of Vieussens on the right side. This summary is very interesting; it shows most positively that convulsions may occur, 1st, in the midst of perfect health; 2d, during the course of acute affections, in which it seems to be analogous to delirium; 3d, that there does not exist any relation between convulsions of certain parts, and particular tissues of the nervous centres; since it appears from our autopsies, that the encephalon of 10 out of 11 children who died at different periods after convulsive seizures, presented no morbid appearance whatever.

The cases of symptomatic convulsions were caused six times by granular meningitis, twice by simple meningitis, four times by encephalitis with and without tubercles, once by real, idiopathic, acute hydrocephalus, and lastly in one instance by cerebral tubercle without inflammation of the brain.—Dr. E. Bouchut *on Diseases of Infants.*

Dr. Henderson, of the University of Edinburgh, has adopted the homœopathic system of practice.